Human Behavior Course
2004

SUICIDE

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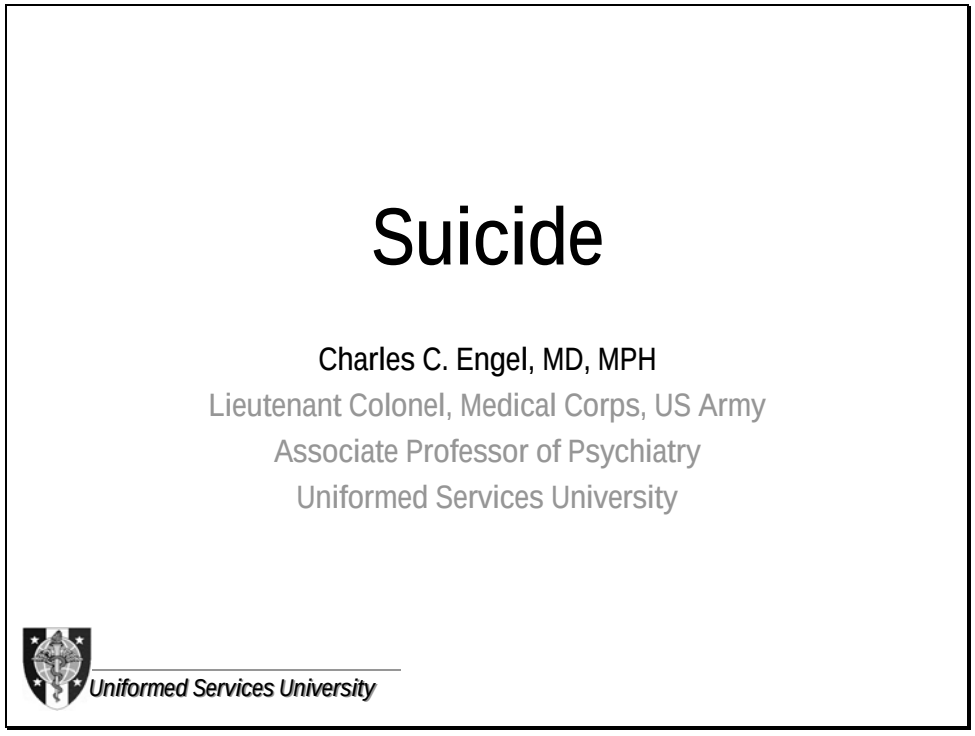
LEARNING OBJECTIVES & ISSUES FOR THOUGHT.

1. Describe basic problems in predicting suicide.
2. List static risk factors for suicide.
3. List dynamic risk factors for suicide.
4. Know what psychiatric diagnoses are most associated with suicide.
5. Compare and contrast suicidal ideation, plan, and intent.
6. What does credibility have to do with suicide risk assessment?

Slide 1



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Terms & Concepts

- suicidal ideation
- suicide plan
- suicide intent
- suicide gesture
- suicide attempt
- parasuicide attempt
- suicide precautions
- no-harm contract
- involuntary commitment
- risk-rescue rating
- risk-benefit analysis
- suicide risk reduction
- suicide prediction
- base rate problem
- malingering & disavowals
- dangerousness
- paternalism
- respect for autonomy
- static risk factors
- dynamic risk factors
- command hallucinations
- lethal means
- contingency planning

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Introduction

- definitions
- prediction versus risk reduction
- epidemiology
- risk factors
- associated mental illnesses
- intervention

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Definition & Phenomenology

- Suicide is a behavior with many causes
- Suicide is not a disorder or disease
- 'Suicidal tendency' is not a characteristic trait or personality type

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Magnitude of the Problem

- Occurrence
  - 30,000 per year in US
  - 75 per day or one every 20 minutes
- Doesn't include attempts (ten for each one completed)
- Doesn't include misclassification
  - intentional OD versus medication mistake
  - one car accidents

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Magnitude of the Problem 2

- ★ USA: 12/100,000
  - New Jersey--lowest; Nevada--highest
  - Golden Gate Bridge: 800 since 1937
- ★ Scandinavia/Germany/Japan: 25/100,000
- ★ Spain/Italy/Egypt: <10/100,000

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Prediction Versus Risk Reduction

- ★ Risk factors consistent across many good studies
- ★ Suicide cannot be reliably predicted
- ★ Suicide risk can be reduced
- ★ Task:
  - identify those who can benefit from care
  - destigmatize the care
  - provide the care

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The Base Rate Problem

- US base rate =
  10-12 completed suicides per 100,000 person-years
- 100 fold increased risk =
  1 suicide per 100 person-years
- Actual timing depends on many 'unpredictables' – life events, chance, changes in general health & psychiatric status
- Can't keep people permanently in the hospital
- Involuntary commitment often has adverse effects

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Risk Factors

- Static risk factors
  - demographics
  - psychiatric diagnosis
  - prior attempts (100 fold increase risk)
  - physical illness
  - trait vulnerabilities (personality disorder)
- Dynamic risk factors
  - clinical
  - situational

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Static Risk Factors 2

- Gender
  - completers - male:female = 3:1
  - Attempters - female:male = 4:1
- Age
  - men: peak after 45
  - women: peak after 55
  - 40/100,000 in men > 65
  - elderly: 25% of suicides in 10% of population

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Static Risk Factors 3

- Race
  - 2/3 in US = white males (16.9/100,000)
- Religion
  - Catholics<Protestants<Jews
- Marital Status
  - divorced>single (never married)>married>married w/children

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Static Risk Factors 4

Psychiatric Disorders & Suicide – 90-95 percent of those who complete have at least one:

- ★ Depression: 50-70%
- ★ Schizophrenia: 10-15%
- ★ Alcohol/Drug Dependence: 15-25% of above

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Depressive Disorders

- ★ Major depressive disorder (MDD)
  - 15% of patients with MDD complete suicide
  - males: 400 per 100,000 person-years
  - females 180 per 100,000 person-years
- ★ Psychiatric treatment
  - less than half at time of suicide
  - antidepressant therapy (caution TCAs)
  - ECT for severe depression if present
  - psychotherapy

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Schizophrenia

- ★ 30% attempt & 10% complete suicide
- ★ 4000 completers per year in the US
- ★ 75% of these are young, single, men
- ★ Why?
  - associated with depression (40%)
  - command auditory hallucinations
  - poor social support systems

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Substance Dependence

- ★ Strong association with polysubstance use
- ★ 15% in persons with alcohol dependence
- ★ Between 7,000 and 13,000 per year
- ★ Other Substances
  - cocaine, crack cocaine (crash)
  - IV substances (intentional v. unintentional ODs)
- ★ Personality disorders (antisocial, borderline)
- ★ Associated emotional states (anxiety/depression).

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Dynamic Risk Factors

- ★ Dynamic risk factors (modifiable)
  - clinical risk factors
    - ☆ progression (ideas, plan, intent)
    - ☆ associated symptom severity
    - ☆ associated symptom types (anxiety, depression, hallucinations, delusions, substances, impulsive aggression)
    - ☆ therapeutic alliance
  - situational risk factors
    - ☆ access
    - ☆ social supports
    - ☆ occupational status
    - ☆ lethal & feasible means

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Dynamic Risk Factors

- ★ Occupation
  - higher SE status = increased risk
  - fall in status = increased risk
- ★ Physicians
  - females: 41/100,000
  - psychiatrists > opthalmologists > anesthesiolgists
  - MDs who commit suicide have mental disorders

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Risk Assessment

- ★ Identify persons at risk
- ★ Careful History & Physical (MSE)
- ★ Past history of attempts
- ★ Ideas (ideation), plan, intent
- ★ Make an appropriate diagnosis

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Risk Assessment: SAD PERSONS

- ★ S.ex (m > f)
- ★ A.ge (old > young)
- ★ D.epressive Disorder
  - S I G E C A P S
- ★ P.revious attempt(s)
- ★ E.mployment status
- ★ R.ecent loss
- ★ S.ingle, divorced
- ★ O.ther substances
- ★ N.o social support
- ★ S.ickness

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Clinical Intervention

- ★ Establish rapport and therapeutic alliance
- ★ Remove access to lethal means
- ★ Get people into treatment
- ★ Address dynamic risk factors
- ★ Activate support systems
- ★ Clinical versus public health intervention

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Risk of suicide and related adverse outcomes after exposure to a suicide prevention programme in the US Air Force: cohort study

Kerry L Knox, David A Litts, G Wayne Talcott, Jill Catalano Feig, Eric D Caine

Abstract

Objective To evaluate the impact of the US Air Force suicide prevention programme on risk of suicide and other outcomes that share underlying risk factors.
Design Cohort study with quasi-experimental design and analysis of cohorts before (1990-6) and after (1997-2002) the intervention.
Participants 5 260 292 US Air Force personnel (around 84% were men).
Intervention A multilayered intervention targeted at reducing risk factors and enhancing factors considered protective. The intervention consisted of removing the stigma of seeking help for a mental health or psychosocial problem, enhancing understanding of mental health, and changing policies and social norms.
Main outcome measures Relative risk reductions (the prevented fraction) for suicide and other outcomes hypothesised to be sensitive to broadly based community prevention efforts, (family violence, accidental death, homicide). Additional outcomes not exclusively associated with suicide were included because of the comprehensiveness of the programme.
Results Implementation of the programme was associated with a sustained decline in the rate of suicide and other adverse outcomes. A 33% relative risk reduction was observed for suicide after the intervention; reductions for other outcomes ranged from 18-54%.
Conclusion A systemic intervention aimed at changing social norms about seeking help and incorporating training in suicide prevention has a considerable impact on promotion of mental health. The impact on adverse outcomes in addition to suicide strengthens the conclusion that the programme was responsible for these reductions in risk.

end of a long road of personal suffering in which multiple indicators of vulnerability pointed to the need for help. They reasoned that this extended period of distress also offered an opportunity for preventive intervention. From their perspective, a responsible suicide prevention programme had to deal with the entire range of afflictions experienced by individuals, families, and their communities.

While many individuals have risk factors, only a few will ever attempt suicide. However, many exhibit decreased functioning, contributing to lost workdays, reduced productivity, great personal suffering, and substantial family distress. The uniqueness of the continuing programme has been its emphasis on early prevention, by intervening at the first signs of dysfunction or distress before the risk of suicide is imminent, while at the same time enhancing the detection and treatment of those at increased danger of taking their own lives. Early population based intervention to prevent suicide has been relatively uncommon. This may be partly due to the pervasive stigma in many cultures surrounding psychosocial or mental health problems, which deters individuals from seeking help.[3-5] These effects are compounded by poor understanding of mental health, defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention."[6] Fundamental to the approach taken by the Air Force was the understanding that only through reducing stigma could its community save lives.

During 1995 there were limited prevention efforts in selected groups of the Air Force and the suicide rate remained unacceptably high. In 1996, the Air Force implemented a population based pr
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behavioural and physical adverse events or problems, foremost of

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Program Components

Table 1 US Air Force (USAF) suicide prevention programme and associated policies (Air Force Instructions (AFIs))

Initiatives and mandated policy	Action	Tracking indicators
I Leadership involvement (AFI 44-154 *Suicide and Violence Awareness and Education and Training*)	Leader awareness education and training (squadron commander courses)	Messages from USAF Chief of Staff delivered every 3-6 months to all installation commanders reminding them of importance of suicide prevention and encouraging them to actively promote protective factors, identify risk factors, and encourage personnel not to fear seeking help
II Dealing with suicide through professional military education (AFI 44-154 *Suicide and Violence Awareness and Education and Training*)	Incorporate suicide prevention into professional military education curriculums through required training	Tracking of training, assessment of skills and knowledge of basic suicide and violence risk factors, intervention skills, and referral procedures for people potentially at risk
III Guidelines for commanders: use of mental health services AFPAM 44-160 *The Air Force Suicide Prevention Program*	Improve referrals of active duty members for evaluation of mental health through emphasising that commanders and mental health professionals are partners in improving duty performance	Annual briefings to commanders included resources for referral to mental health, substance abuse, family advocacy, or emergency evaluation (as of 2000, resources accessible through AF website for commanders)
IV Community preventive services (AF Manual 168-696)	Increase preventive functions performed by mental health personnel	Provide one full time equivalent member of staff for community based preventive services at every mental health work centre
V Community education and training (AFI 44-154 *Suicide Prevention Education and Community Training*)	Required training at two levels for non-professionals in basic suicide factors, intervention skills, and referral procedures for people potentially at risk	Non-supervisory "buddy care" training for all personnel and leadership/supervisory training for unit gatekeepers
VI Investigative interview policy (hands-off policy)	Changes in policies to ensure individuals under investigation for legal problems (risk for suicide) are assessed for suicide potential	AF Chief of Staff signed policy letter in 1996; no suicides have resulted since due to agencies failing to comply
VII Critical incident stress management (CISM) (AFI 44-163 *Critical Incident Stress Management*)	Establishment of a multidisciplinary CISM team to respond to traumatic events, including completed suicides	All installations now have multi-disciplinary CISM teams composed of mental health providers, medical providers, and chaplains.
VIII Integrated delivery system (IDS) for human services prevention, chartered as a standing subcommittee of (AF CAIB AFI 90-500 *Community Action Information Boards*)	Establishment of seamless system of services across multidisciplinary human services prevention activities which functions to provide centralised information (I) and referral (R) and collaborative marking of IDS I and R and preventive services	Increase protective factors and decrease behavioural risk factors through eliminating duplication, overlap, and gaps in delivering prevention services. Core membership includes but not limited to family advocacy programme, family support, health promotion/health and wellness centres, mental health clinics, child and youth programmes, and chaplains
IX Limited patient privilege (AFI 44-109 *Mental Health, Confidentiality and Military Law*)	Established psychotherapist-patient privilege for individuals at risk for suicide as means to promote help seeking behaviour	Confidentiality encourages help seeking behaviour; especially in cases undergoing disciplinary action where information revealed to mental health provider is not used in judicial action
X Behavioural health survey	Tool for assessing behavioural health aspects of unit available to any commander	In 1999 survey 73% of commanders reported suicide was top item of interest to understand how to promote behavioural health strengths and respond to needs of their units
XI Suicide event surveillance system	Central surveillance database	Tracks psychological, social, and behavioural risk factors

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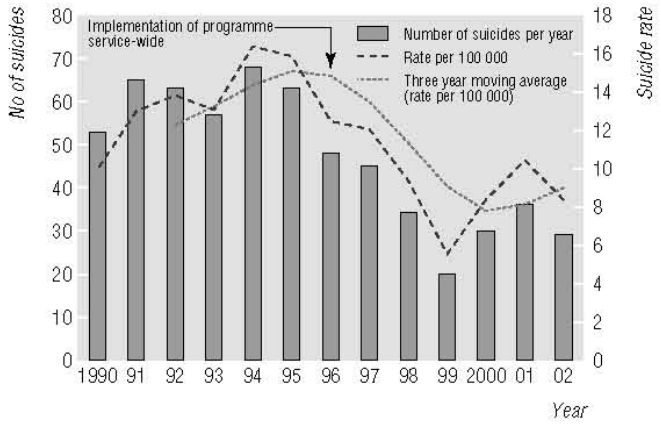

Fig 1 Number of suicides, suicide rates, and three year moving average for rates of suicide, US Air Force, 1990-2002

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Table 3 Comparison of effects of risk for suicide and related adverse outcomes in US Air Force population before (1990-6) and after implementation of programme (1997-2002)

Outcome	Relative risk (95% CI)	Risk reduction (1–relative risk)	Excess risk (relative risk–1)
Suicide	0.67 (0.57 to 0.80)	33%	—
Homicide	0.48 (0.33 to 0.74)	51%	—
Accidental death	0.82 (0.73 to 0.93)	18%	—
Severe family violence	0.46 (0.43 to 0.51)	54%	—
Moderate family violence	0.70 (0.69 to 0.73)	30%	—
Mild family violence	1.18 (1.16 to 1.20)	—	18%

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Summary

Suicide…

- ★ can't be predicted
- ★ risk can be assessed & reduced
- ★ know the risk factors
- ★ make the appropriate diagnosis
- ★ document rationale & risk-benefit assessment
- ★ Intervention – clinical & public health levels

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